



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

*A United Nations Specialized Agency*

ASBU/SIP/MEXICO/2013-WP/4

# ANConf/12- Outcome and Follow-up

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Air Navigation Bureau

ICAO SIP Workshop on ASBU methodology  
(Mexico, 22-26 July 2013)

# 12<sup>th</sup> Air Navigation Conference



## 12<sup>th</sup> Air Navigation Conference

ICAO Headquarters  
Montréal, Canada  
19-30 November 2012

- **10** Days
- **232** Conference Recommendations
- **153** Working Papers (WP)
- **62** Information Papers (IP)
- **1,030** Participants
- **120** States
- **30** International Organizations
- **25+** Media Articles

# 12<sup>th</sup> Air Navigation Conference

## Summary of Discussions



### 12<sup>th</sup> Air Navigation Conference

ICAO Headquarters  
Montréal, Canada  
19-30 November 2012



- Common understanding for future air navigation system
- Harmonization of ATM modernization
- Formalize future of infrastructure & equipage
- Endorsement of revised ICAO Global Air Navigation Plan (GANP)
- Agreement of Aviation System Block Upgrades (ASBU)



# AN-Conf/12 : Outcomes

## *Item 1 Strategic Issues in Support of One Sky*



- Revised draft Fourth Edition of the Global Air Navigation Plan (Doc 9750, GANP)
- Associated technology roadmaps



# AN-Conf/12 : Outcomes

## *Item 2: Improving Airport Performance*



- Conference supported module on:
  - Integration of arrival/departure/surface management
  - Increasing use of PBN and GBAS based instrument procedures
  - Optimized management of wake turbulence separation
  - Enhanced surface surveillance
  - Airport collaborative decision-making

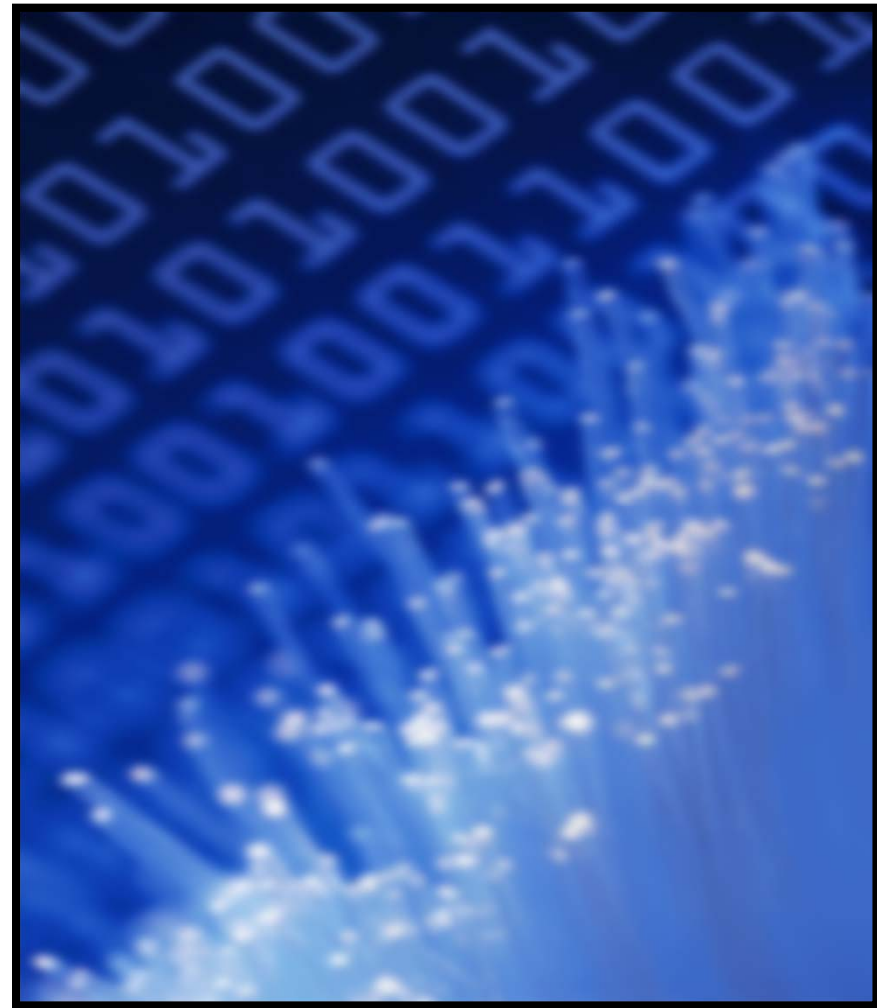


# AN-Conf/12 : Outcomes

## *Item 3: Interoperability & Data – SWIM*



- Conference supported module on:
  - Application of SWIM
  - FF-ICE
  - Integration of aeronautical and ATM information



# AN-Conf/12 : Outcomes

## *Item 4: Optimum Capacity & Efficiency*



- Conference supported module on:
  - Network Operations
  - Airborne separation
  - Airborne collision avoidance systems & ground-based safety nets
  - The integration of remotely piloted aircraft into non-segregated airspace
  - Meteorological information supporting enhanced operational safety and efficiency



# AN-Conf/12 : Outcomes

## *Item 5: Efficient Flight Paths – through TBO*



- Conference supported module on:
  - Improved flexibility and efficiency in descent profiles
  - Improved flexibility and efficiency in climb profiles
  - Data link surveillance and communications supporting TBO
  - TBO– 4D TRAD





# AN-Conf/12 : Outcomes

## Item 6: Future Direction



- **Conference recommendations on:**
  - Way forward in implementing updated GANP by PIRGs and States
  - Development of Regional eANP
  - In human performance context, determined where there may be need for global standardization or future emphasis
  - Multi-party approaches to standards development that take advantage of coordination and collaboration within the ICAO/State relationship, and between ICAO and s  
bodies



# The Big Picture

## 12<sup>th</sup> Air Navigation Conference



### Important Developments

- **4** ICAO Milestones
  - Global Air Navigation Plan (GANP)
  - 2012 Safety Report
  - ASBU Block 0 iKit
  - Air Operator Certificates (AOC) iKIT
  
- **8** Agreements Signed



|                      |                               |                                    |                               |
|----------------------|-------------------------------|------------------------------------|-------------------------------|
| ICAO-FSF<br>MoC      | Singapore-<br>MITRE<br>MoU    | Singapore-<br>Airbus Prosky<br>MoC | ASECNA -<br>France AFI FPP    |
| Singapore-FAA<br>Sol | Singapore-<br>SESAR JU<br>MoC | India - MITRE<br>MoU               | ASECNA, ICAO,<br>Thales, INEO |



# Next Steps



- **Environmental & Operational Assessments**
  - **Committee on Aviation Environmental Protection (CAEP)** modeling environmental benefits of ASBU Block 0 modules. More information by the end of 2013
  - **IATA** assessing the operational benefits
- **Technical Work**
  - Air Navigation Information Management (IM) Divisional Meeting (2015)
  - Aviation Data Link Symposium: Now and Tomorrow (2015)



# Next Steps



- **Operational Policies**

- Incentives to allow early benefits of new technologies and procedures (including economic incentives)

- **Financing Policies**

- Reviewed by the ***Air Transport Conference (AT Conf/6) held in March 2013***
- Task assigned to service providers, operators and economists



# Next Steps: Advanced ATM Symposium

*Today's Opportunities for Saving Fuel and Reducing Emissions*



*4-6 November 2013, ICAO Headquarters, Montréal*

*Focus on*

- Measurable improvements
- Fuel savings & reducing emissions
- Global efficiency
- Cost effectiveness



# Next Steps: Advanced ATM Symposium

*Today's Opportunities for Saving Fuel and Reducing Emissions*



- Showcase of achievements in ATM since 11<sup>th</sup> Air Navigation Conference
  - Experience sharing
  - Learning and training
- Environmental impact
  - Measure it
  - Publicize it
- Four priority areas
  - CDM/ATFM
  - Continuous Operations (CCO) / Continuous Descent Operations (CDO)
- Use of the ICAO Fuel Savings Estimation Tool (IFSET)

# Next Steps: BUDDS



- An end-to-end system demonstration of new air traffic management concepts
- States and Industry are invited to play a part in this event by showing their latest developments and best practices in the field of air traffic management
- Planned in 2014

# Next Steps: BUDDS



- Intended Outcomes
  - International exposure to potential systems and technologies to support Block 0 implementation
  - Identification of: Business case benefits of implementing Block 0 and Economic opportunity cost of not implementing Block 0
  - Reinforcement of Block 0 implementation strategies (ASBU iKITS)
  - Agreed concept of Operations (CONOPS) for Block 1 to enable the appropriate standards and procedures to be developed
  - Demonstration of intended performance scenarios for Blocks 1, 2 and 3

# Next Steps



## AN-CONF/12 Recommendation: 6.12

- **Development of SARPs, procedures and guidance material**
  - a) Improve its project management and coordination of contributing ICAO panels, study groups and other groups tasked with the development of ICAO provisions

# Next Steps by PIRGs and States



## Recommendation 6/1 – Regional performance framework – planning methodologies and tools

That States and PIRGs:

- a) finalize the alignment of regional air navigation plans with the Fourth Edition of the *Global Air Navigation Plan* (Doc 9750, GANP) by May 2014;
- b) focus on implementing aviation system block upgrade Block 0 Modules according to their operational needs, recognizing that these modules are ready for deployment;



# Next Steps by PIRGs and States



## **Recommendation 6/1 – Regional performance framework – planning methodologies and tools**

That States and PIRGs:

- c) use the eANPs as the primary tool to assist in the implementation of the agreed regional planning framework for air navigation services and facilities;
- d) involve regulatory and industry personnel during all stages of planning and implementation of aviation system block upgrade modules;
- e) develop action plans to address the identified impediments to air traffic management modernization as part of aviation system block upgrade planning and implementation activities;

# AN-Conf/12 : Follow-up action



- **Follow-up by PIRGs**
  - Every PIRG meeting in 2013 will be presented with an action plan to implement relevant Recommendations
- **Follow-up by States**
  - A State letter by the SG will be issued in May 2013 with an action plan to implement relevant Recommendations
- **Follow-up by Secretariat**
  - The ANC will be reviewing and allocating in May 2013 the relevant Recommendations to Expert Groups or the Secretariat for developing SARPs and guidance material



North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montreal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Office  
Bangkok

Thank You

A world map is shown in a light blue color. Eight dots are placed on the map, each connected by a thin blue line to a text label describing an ICAO regional office. The dots are located in North America (Mexico City), South America (Lima), North America (Montreal), Africa (Dakar), Europe (Paris), Middle East (Cairo), East Africa (Nairobi), and Asia (Bangkok). The Montreal dot is highlighted with an orange line and text.